UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 7
11201 Renner Boulevard
Lenexa, Kansas 66219

AUG 0 2 2017

MEMORANDUM

SUBJECT: Spent Blast Media Treatment and Disposal Work Plan at W&B of Franklin County (formerly Missouri Green Materials, LLC); Berger, Missouri – Reviewed

FROM: Diane Harris, Regional Quality Assurance Manager
Environmental Sciences and Technology Division

TO: Elizabeth Koesterer, Compliance Officer
Waste Enforcement and Materials Management Branch
Air and Waste Management Division

The review of the subject document prepared by GREDELL Engineering Resources, Inc. and date December 7, 2016 has been completed according to the "EPA Requirements for Quality Assurance Project Plans for Environmental Data Operations," EPA QA/R-5 March 2001. Because the document was unsigned, it was reviewed as a draft and the comments are outlined below.

Comments

1. § 1.0 Introduction, page 1 of the Work Plan. Stockpiles will be transported for disposal if they meet the LDR and the landfill's disposal criteria. No additional information is provided regarding the landfill disposal criteria. If sampling and analysis is required to determine if landfill disposal criteria are met, this sampling and analysis needs to be included or if it is adequately addressed in a separate document, a reference to that document needs to be added.

2. § 4.0 Background Sampling and Field Screening, page 3 of the Work Plan.

   a. Proposed soil samples and building surface samples "may" be field screened with an XRF. Use of the word "may" implies this field screening is optional. What circumstances would trigger field screening with an XRF and how will this XRF field screening data be used? See also Section 15.0 which too states XRF field screening "may" be conducted.

   b. The first paragraph in this section refers to use of an XRF per an MDNR Brownfields generic QAPP. Because this is not a Brownfields site or voluntary cleanup site and the MDNR generic QAPP only mentions XRF in passing in sections A8 and B4, it is not clear what is meant by the statement that XRF will be used per the MDNR generic QAPP.

   c. This section makes a point of referring to representative surface soil and building surfaces samples. How is representativeness being addressed to ensure these samples are representative of site conditions at the time they are collected?

d. Based on the information provided here, it appears that surface soil samples will be grab samples. However, if XRF field screening is to be performed and if the attached "example" XRF SOP is to be followed, it must be noted that the "example" XRF SOP calls for the collection of composite soil samples made up of nine sub-samples for field screening rather than grab samples. What is correct?

e. The second paragraph of this section refers to the QAPP and the U.S. Environmental Protection Agency protocol for the collecting, containerizing, preserving and shipping the samples but the QAPP does not include this information and it is not clear what the "EPA protocol" is being referenced.

3. § 9.0 Treated SBM Verification Sampling, page 6 of the Work Plan. A duplicate sample will be collected from every group of 10 composite samples. How will field duplicate sample results be evaluated to determine if they are acceptable, who will be responsible for making this comparison, and what action might be taken if the results are not acceptable?

4. § 9.0 Treated SBM Verification Sampling, page 7 of the Work Plan. A five working day turnaround time is required for the treated SBM stockpile samples. What turnaround time is needed for the soil and building surfaces samples?

5. § 11.0 Meetings and Monthly Reporting, page 7 of the Work Plan. Who will be responsible for preparing the monthly summary and final reports as described here?

6. § 12.0 Work Plan Timeline, page 8 of the Work Plan. The last paragraph in this section identifies a proposed startup date of April 2017. Because the Work Plan was not received by the QA Office for review until July 2017, this proposed date should be updated.

7. § 15.0 Site Restoration, Post-Processing Sampling and Field Screening, page 11 of the Work Plan. A separate remediation work plan will be prepared if post-processing sample results indicate an impact due to processing and disposal activities. Although an assumption can be made, the Work Plan needs to clearly state what type of post-processing sample results would indicate an impact.

8. Appendix 1, MDNR QAPP and Addendum for Brownfields/Voluntary Cleanup Program Sites. The MDNR generic QAPP and addendum format are only applicable to Brownfields sites and sites enrolled in the MDNR voluntary cleanup program. Because this site is neither, use of the MDNR generic QAPP and addendum format is improper and inappropriate. All references to the MDNR Brownfields/Voluntary Cleanup Program Sites QAPP and SSQA need to be deleted.

9. Distribution List, page 1 of Appendix 1. In addition to identifying the key individuals for the project, the QAPP needs to also briefly summarize their responsibilities.

10. Data Quality Objectives, page 2 in Appendix 1.

    a. The PDC QA Plan is referenced for detection limits; however, the attached PDC QA Plan does not include this information. It must be verified and documented in the QAPP that the detection limits achieved by the laboratory for the methods selected are sensitive enough to meet criteria, which for this project, are the LDRs and the Universal Treatment Standards as well as whatever landfill disposal criteria may apply (see also comment #1).

b. The PDC QA Plan is referenced for representativeness, comparability, and completeness; however, the attached PDC QA Plan does not include such information and it is not clear how a laboratory alone can address representativeness (see also comment #2. c.), comparability, and completeness for a project when field activities are a major component of these data quality indicators.

11. Documentation and Records, page 2 in Appendix 1.

    a. This section refers to field analytical sheets and chain-of-custody forms but no examples are attached or a reference provided to where they can be found.

    b. Based on the information provided and the example logs attached, it remains unclear what field documentation will be generated for the surface soil and building surfaces sampling.

    c. This section of a QAPP needs to also address the following:

        i. The process and responsibilities for ensuring that the most current approved version of the QAPP is available

        ii. The level of detail of the field sampling and/or lab analysis narrative needed to completely describe difficulties encountered

        iii. The retention time and location for records and reports

12. Sampling Process Design, Screening/Definitive Sampling, page 2 in Appendix 1. This section indicates a minimum confirmation rate of 10% for all field analytical screening samples collected. As noted previously, it is unclear if and when field screening with an XRF will be conducted (see also comments #2. a and #2. b). If XRF field screening will be performed with laboratory confirmation, the QAPP needs to clearly address the following:

    a. How the 10% field screened samples will be selected for laboratory confirmation

    b. What criteria will be applied in determining if the lab results do indeed confirm the XRF results and who will be responsible for making this comparison

13. Sampling Methods, page 2 of Appendix 1. For SOPs/Guidance, this section refers to the Work Plan and the EPA Guidance.

    a. Except for an "example" XRF SOP, the Work Plan does not include any SOPs or other documented procedures for how samples will be collected.

    b. It is not clear what is meant by an "example" SOP. If XRF field screening will be performed and an SOP followed, the actual SOP to be followed must be included.

    c. What specific "EPA Guidance" is being referenced here?

    d. It was noted that the "example" XRF SOP does not address the issue of moisture and drying and sieving the soils prior to taking an XRF reading. Moisture content may affect the accuracy of

XRF readings for soil and if this has been determined to not to be an issue for this project (assuming XRF field screening will be performed), this needs to explained.

e. This section of a QAPP needs to also address:

   i. The individuals responsible for any corrective action that may be needed in the field

   ii. The process for preparation and decontamination of sampling equipment as applicable

   iii. The selection and preparation of sample containers and sample volumes

   iv. The preservation methods and maximum holding times

14. Sample Handling and Custody, page 2 of Appendix 1. This section refers to the generic QAPP and SOPs. Because the generic QAPP is not applicable or relevant and no other sample handling and custody SOPs or equivalent information are included or referenced, this QAPP element could not be reviewed and verified.

15. Quality Control, page 3 of Appendix 1. This section states "One duplicate sample will be collected for every one in ten Spent Blast Media, Soil and Ghost Wipe Samples." However, the Work Plan only identifies field duplicates for the composite Spent Blast Media samples (see Section 9.0). Which is correct? If duplicates will also be collected for the soil and wipe samples, this needs to be clearly indicated in the Work Plan along with how these field duplicate sample results will be evaluated to determine if they are acceptable, who will be responsible for making this comparison, and what action might be taken if the results are not acceptable.

16. Instrument/Equipment Testing, Inspection, Calibration/Frequency and Maintenance, page 3 of Appendix 1.

    a. This section includes reference to the generic QAPP but the generic QAPP is not applicable or relevant.

    b. This section needs to address not only field instruments and equipment but laboratory instruments and equipment as well.

17. Inspection/Acceptance of Supplies and Consumables, page 3 of Appendix 1. This section refers to the generic QAPP and because the generic QAPP is not applicable or relevant and no other equivalent information was found or referenced, the inspection/acceptance of supplies and consumables could not be reviewed and verified.

18. Non-Direct Measurements, page 3 of Appendix 1. This section refers to the generic QAPP but because the generic QAPP is not applicable or relevant and no other equivalent information was found or referenced, this QAPP element could not be reviewed and verified.

19. Data Management, page 3 of Appendix 1. This section refers to the generic QAPP but because the generic QAPP is not applicable or relevant and no other equivalent information was found or referenced, data management could not be reviewed and verified.

20. Assessment and Response Actions, page 3 of Appendix 1. Assessments and response actions will be managed by the contractor project manager and the project field superintendent. The type and frequency for these assessments and who is responsible for conducting them needs to be included.

21. Reports to Management, page 3 of Appendix 1. This section of a QAPP needs to also address the frequency and distribution of reports for:

    a. The results of performance evaluations and audits where applicable

    b. The results of periodic data quality assessment where applicable

    c. Any significant QA problems

22. Data Validation and Usability, page 3 of Appendix 1. The Work Plan is referenced for data review, validation and verification. However, the Work Plan does not address these topics.

23. Reconciliation with User Requirements, page 3 of Appendix 1. This section indicates reconciliation with user requirements will be per the Work Plan. However, the Work Plan does not address this topic.

24. Approvals. The final QAPP will need to include all appropriate signatures.

If you have any questions, please contact me at x7258.

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